

IN THE CLAIMS:

1-15. (cancelled)

16. (currently amended) A method of manufacturing a magnetic recording medium comprising:

~~a non-magnetic glass substrate,~~

forming a seed layer formed on the on a non-magnetic glass substrate, and

~~a magnetic layer, and~~

heating the seed layer,

forming an underlayer formed between the seed layer and the a magnetic layer, wherein:

said seed layer is amorphous or micro crystal, and contains at least Ti and Al,

said magnetic layer contains a Co alloy, has an h.c.p structure and is oriented in (11.0) direction relative to the plane parallel with the substrate,

said underlayer is oriented in (100) direction relative to the plane parallel with the substrate, ~~and~~

the seed layer contains at least 35 at% or more and 65 at% or less of Ti, and at least 35 at% or more and 65 at% or less of Al based on the entire composition,

a first temperature for forming the seed layer is 100°C or higher, and

a second temperature for heating the seed layer is 100°C or higher and 380°C or lower.

17. (currently amended) A method of manufacturing a magnetic recording medium according to claim 16, wherein said underlayer contains Cr or Cr alloy.

18. (cancelled)

19. (currently amended) A method of manufacturing a magnetic recording medium according to claim 16, wherein the underlayer comprises a multi-layered structure having at least two layers, the underlayer of the multi-layered structure comprises a first underlayer containing Cr or CrTi

and a second underlayer containing at least one element selected from the group consisting of Cr, Nb, Mo, Ta, W and Ti, formed successively from the side nearer to the substrate.

20. (currently amended) A method of manufacturing a magnetic recording medium according to claim 16, wherein the underlayer comprises one or plurality of underlayers formed on the seed layer, and

said magnetic layer contains CoCr alloy and 0.5 at% or more and 8.0 at% or less of at least one element selected from the group consisting of C, B, Si and Ta.

21. (currently amended) A method of manufacturing a magnetic recording medium according to claim 20, wherein one or a plurality of intermediate layers containing at least Co and Cr are formed on the one or plurality of underlayers.

22-27. (cancelled)

28. (new) A method of manufacturing a magnetic recording medium comprising:

forming a seed layer on a non-magnetic glass substrate,

oxidizing a surface of the seed layer, and

forming an underlayer between the seed layer and a magnetic layer, wherein:

said seed layer is amorphous or micro crystal, and contains at least Ti and Al,

said magnetic layer contains a Co alloy, has an h.c.p. structure and is oriented in (11.0) direction relative to the plane parallel with the substrate,

said underlayer is oriented in (100) direction relative to the plane parallel with the substrate,

the seed layer contains at least 35 at% or more and 65 at% or less of Ti, and at least 35 at% or more and 65 at% or less of Al based on the entire composition, and

the seed layer is formed at 100°C or higher.

29. (new) A method of manufacturing a magnetic recording medium according to claim 28, wherein said underlayer contains Cr or Cr alloy.

30. (new) A method of manufacturing a magnetic recording medium according to claim 28, wherein the underlayer comprises a multi-layered structure having at least two layers, the underlayer of the multi-layered structure comprises a first underlayer containing Cr or CrTi and a second underlayer containing at least one element selected from the group consisting of Cr, Nb, Mo, Ta, W and Ti, formed successively from the side nearer to the substrate.
31. (new) A method of manufacturing a magnetic recording medium according to claim 28, wherein the underlayer comprises one or a plurality of underlayers formed on the seed layer, and
said magnetic layer contains CoCr alloy and 0.5 at% or more and 8.0 at% or less of at least one element selected from the group consisting of C, B, Si and Ta.
32. (new) A method of manufacturing a magnetic recording medium according to claim 31, wherein one or a plurality of intermediate layers containing at least Co and Cr are formed on the one or plurality of underlayers.
33. (new) A method of manufacturing a magnetic recording medium comprising:
forming a seed layer on a non-magnetic glass substrate,
nitriding a surface of the seed layer, and
forming an underlayer between the seed layer and a magnetic layer, wherein:
said seed layer is amorphous or micro crystal, and contains at least Ti and Al,
said magnetic layer contains a Co alloy, has an h.c.p. structure and is oriented in (11.0) direction relative to the plane parallel with the substrate,
said underlayer is oriented in (100) direction relative to the plane parallel with the substrate,
the seed layer contains at least 35 at% or more and 65 at% or less of Ti, and at least 35 at% or more and 65 at% or less of Al based on the entire composition, and
the seed layer is formed at 100°C or higher.
34. (new) A method of manufacturing a magnetic recording medium according to claim 33, wherein said underlayer contains Cr or Cr alloy.

35. (new) A method of manufacturing a magnetic recording medium according to claim 33, wherein the underlayer comprises a multi-layered structure having at least two layers, the underlayer of the multi-layered structure comprises a first underlayer containing Cr or CrTi and a second underlayer containing at least one element selected from the group consisting of Cr, Nb, Mo, Ta, W and Ti, formed successively from the side nearer to the substrate.

36. (new) A method of manufacturing a magnetic recording medium according to claim 33, wherein the underlayer comprises one or a plurality of underlayers formed on the seed layer, and
said magnetic layer contains CoCr alloy and 0.5 at% or more and 8.0 at% or less of at least one element selected from the group consisting of C, B, Si and Ta.

37. (new) A method of manufacturing a magnetic recording medium according to claim 36, wherein one or a plurality of intermediate layers containing at least Co and Cr are formed on the one or plurality of underlayers.